Instructions for Downloading R and R Studio

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IMPORTANT NOTE:

We will install both R and RStudio, but whenever you want to use R, you will just open RStudio (R will work in the background!)

This tutorial provides you the instructions for downloading R and R Studio.

What is R? What is RStudio? Do I need both?

"R is a free software environment for statistical computing and graphics."[1]

In R we can create data, clean data, generate new variables, summarize the descriptive statistics of our variables, run regression analyses, and visualize our findings. However, just like using Stata, or MatLab, we need to learn how to write in R language. In this workshop we will learn R language by solving some statistical "puzzles."

"RStudio is an integrated development environment (IDE) for R"[2]

Although downloading R software is enough for running all the analyses and creating the files we need for future use, RStudio provides the additional tools that ease the coding experience. While R software is limited to showing the console you are working on (i.e., where you type your code and press "Enter" to run your code line by line) and opening the scripts (the codes you wrote and saved as a text file) you saved earlier in new pop-up windows, RStudio can show (a)your console, (b)multiple R scripts, (c)your environment (i.e. the elements available in your workspace, we will get to that), (d) graphs and plots you visualize, (e) your working directory (i.e., the folder you use for your project), (f) R documentation (i.e., the place you would like to look at when you are puzzled with how to run a function or how to change its parameters), and more.

So, in short… Although you can do every single thing we will go through in this workshop by just downloading R, I *highly* recommend you to download RStudio as well.

Start with Downloading R

Go to https://www.r-project.org/ to download R software first. Go to the navigation bar on the left-hand-side and click on "CRAN" (see the area highlighted with a red circle in Image 1).

Next, you will navigated to a website with lots of links for different geolocations. Select a location that is closest to you (if you are in Indiana, for example, you might want to prefer the Indiana University link (see image 2).

[1] https://www.r-project.org/
[2] https://rstudio.com/products/rstudio/

Image 1

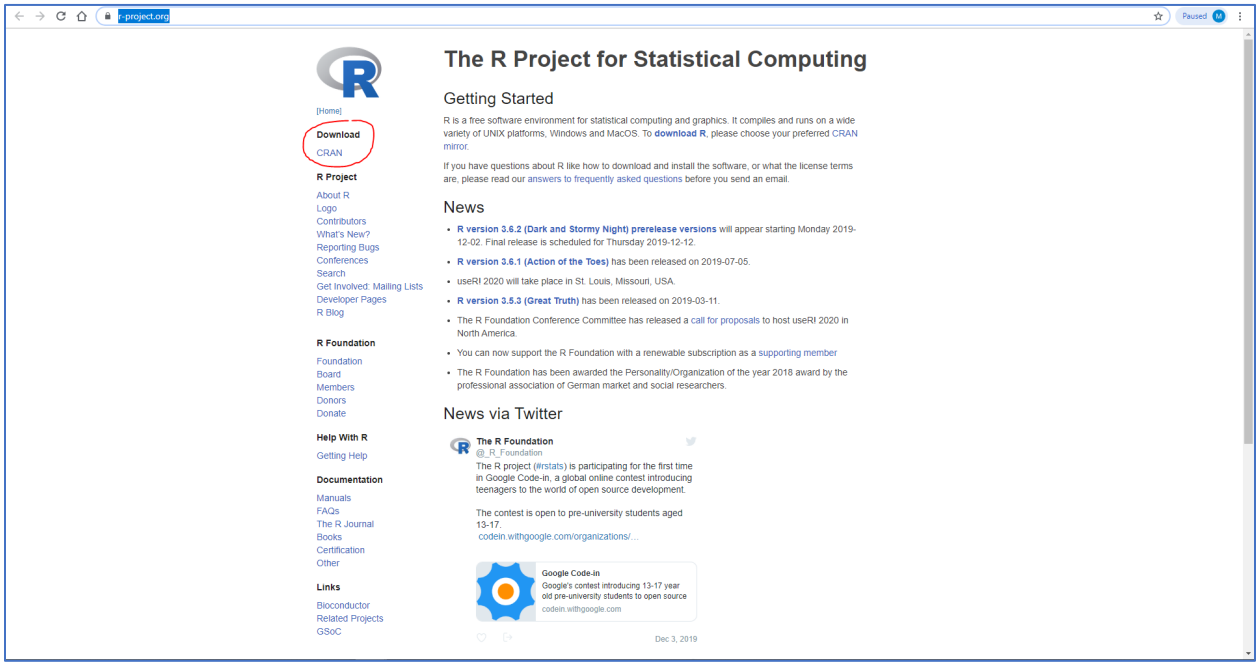
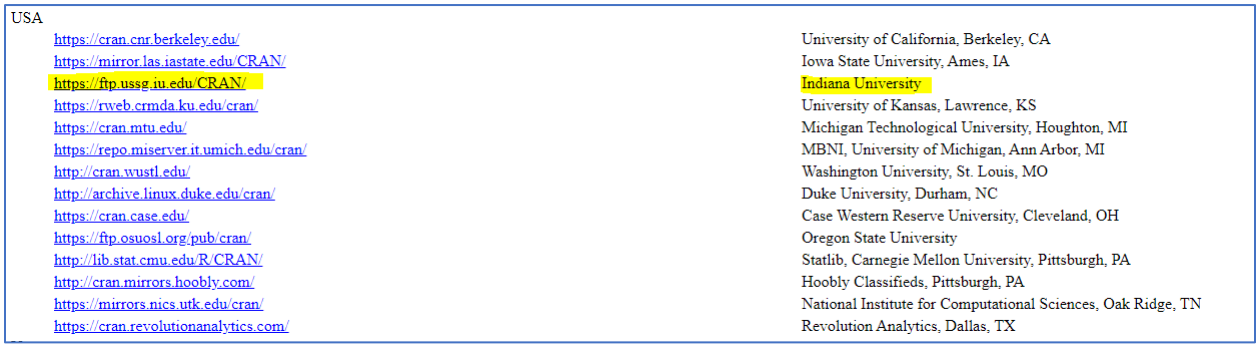


Image 2

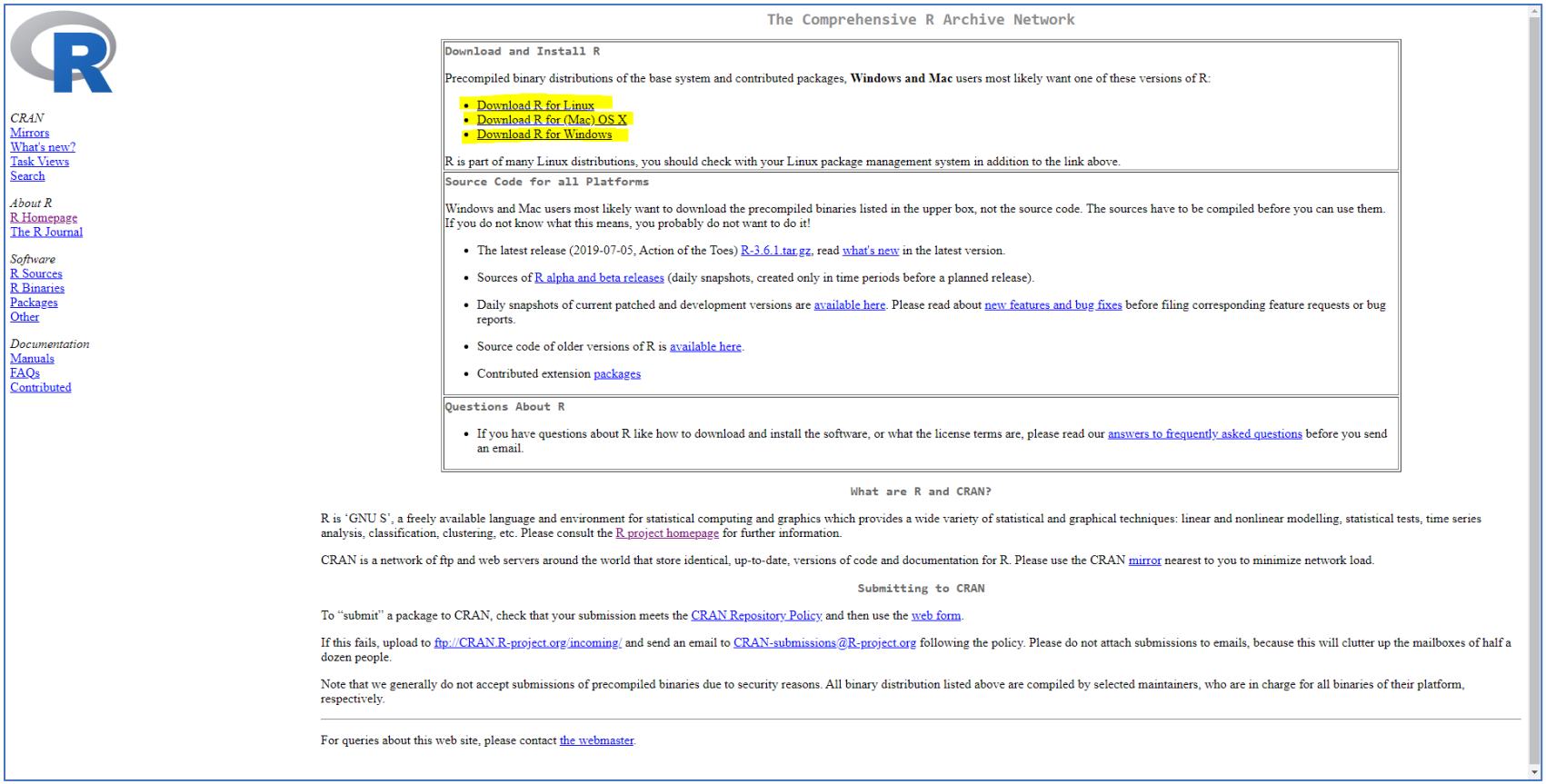


Next, you will come across with a page as seen in Image 3. Depending on which operating system you use, either Linux, Mac or Windows, choose the first, second or third link respectively highlighted at the very top.

- If you follow the link for Mac users, choose the latest release available (currently 3.6.1)
- If you follow the link for Windows users, click “base”.

Both steps will start the downloading process, and you will install your program just like how you would install any other program to your computer.

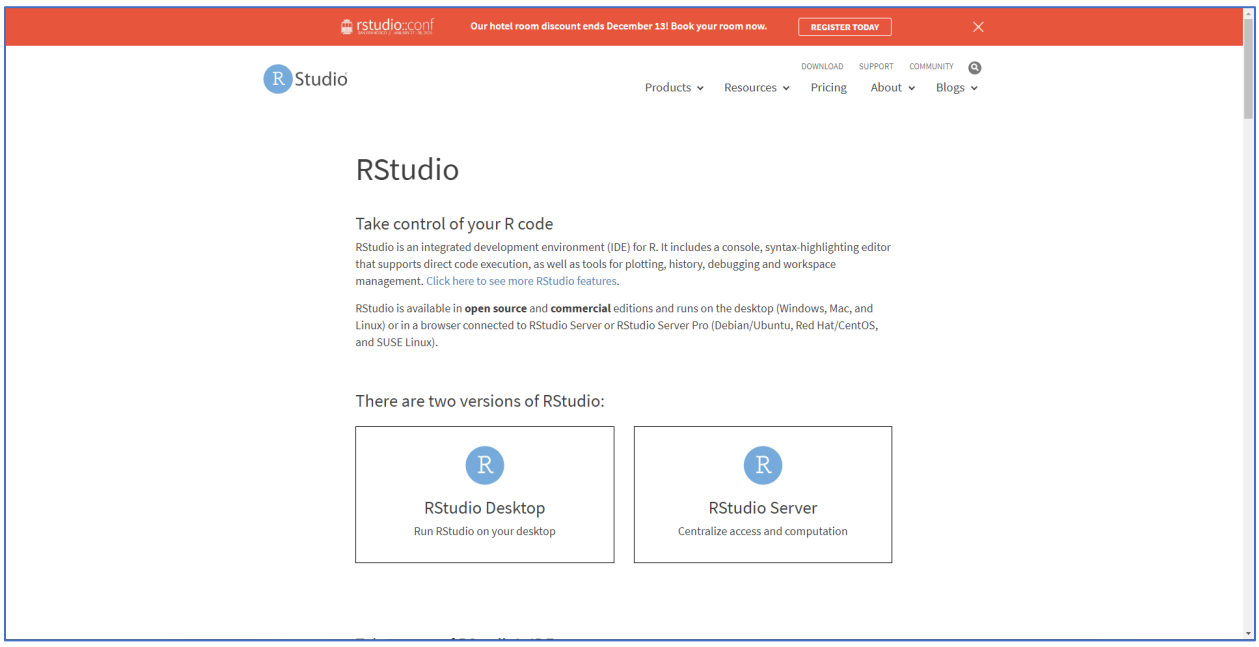
Image 3


The Comprehensive R Archive Network
CRAN
Mirrors
What's new?
Task Views
Search
About R
R Homepage
The R Journal
Software
R Sources
R Binaries
Packages
Other
Documentation
Manuals
FAQs
Contributed
Download and Install R
Precompiled binary distributions of the base system and contributed packages, Windows and Mac users most likely want one of these versions of R:
Download R for Linux
Download R for (Mac) OS X
Download R for Windows
R is part of many Linux distributions, you should check with your Linux package management system in addition to the link above.
Source Code for all Platforms
Windows and Mac users most likely want to download the precompiled binaries listed in the upper box, not the source code. The sources have to be compiled before you can use them. If you do not know what this means, you probably do not want to do it!
The latest release (2019-07-05, Action of the Toes) R-3.6.1.tar.gz, read what's new in the latest version.
Sources of R alpha and beta releases (daily snapshots, created only in time periods before a planned release).
Daily snapshots of current patched and development versions are available here. Please read about new features and bug fixes before filing corresponding feature requests or bug reports.
Source code of older versions of R is available here.
Contributed extension packages
Questions About R
If you have questions about R like how to download and install the software, or what the license terms are, please read our answers to frequently asked questions before you send an email.
What are R and CRAN?
R is 'GNU S', a freely available language and environment for statistical computing and graphics which provides a wide variety of statistical and graphical techniques: linear and nonlinear modelling, statistical tests, time series analysis, classification, clustering, etc. Please consult the R project homepage for further information.
CRAN is a network of ftp and web servers around the world that store identical, up-to-date, versions of code and documentation for R. Please use the CRAN mirror nearest to you to minimize network load.
Submitting to CRAN
To "submit" a package to CRAN, check that your submission meets the CRAN Repository Policy and then use the web form.
If this fails, upload to ftp://CRAN.R-project.org/incoming/ and send an email to CRAN-submissions@R-project.org following the policy. Please do not attach submissions to emails, because this will clutter up the mailboxes of half a dozen people.
Note that we generally do not accept submissions of precompiled binaries due to security reasons. All binary distribution listed above are compiled by selected maintainers, who are in charge for all binaries of their platform, respectively.
For queries about this web site, please contact the webmaster.

After Installing R, Move on to Downloading R Studio

To download R Studio, go to https://rstudio.com/products/rstudio/ and click on “RStudio desktop” on the left hand-side.

Image 4



Then, download the Open Source version by clicking “Download RStudio Desktop,” as seen in Image 5. On the next page, as illustrated in Image 6, choose *the free version of RStudio Desktop* to download. After clicking on that link, you will be navigated to a new page (see Image 7) where different editions of RStudio software is available. If you are a Windows user, click on the BIG BLUE BUTTON 😊 otherwise, go to the “All Installers” list and choose the one that fits your operating system to download.

Image 5

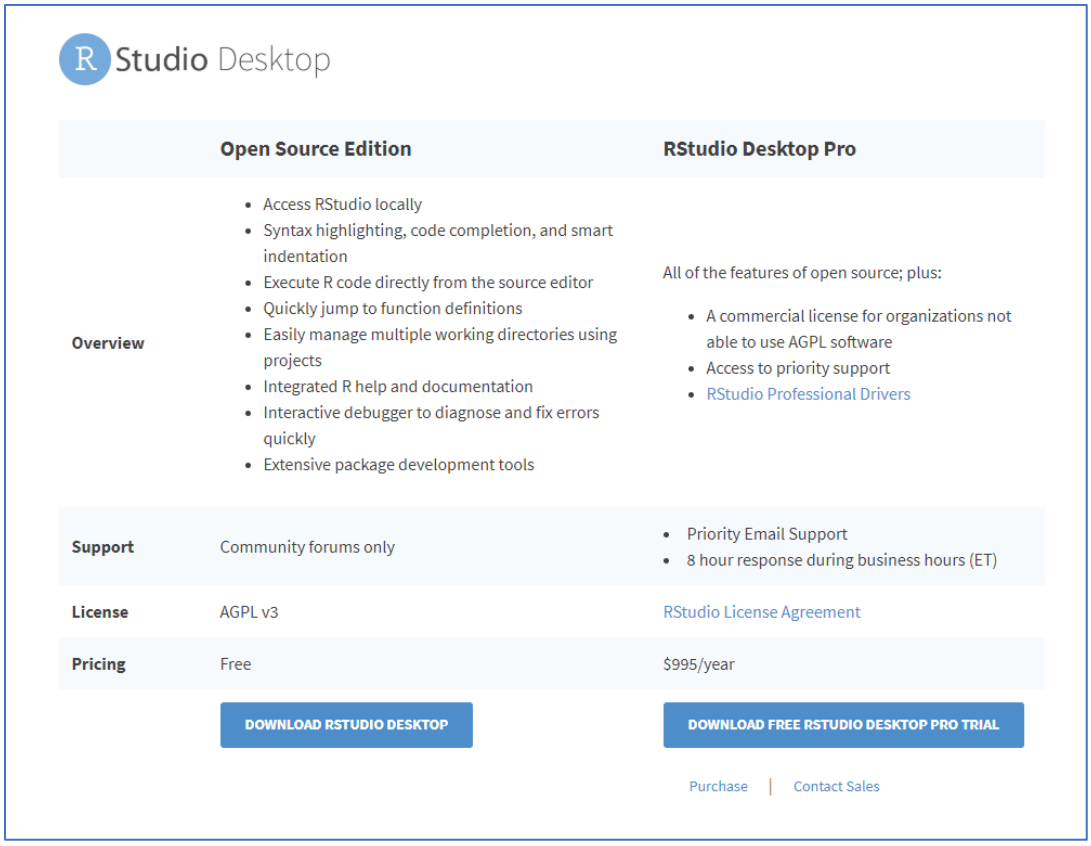
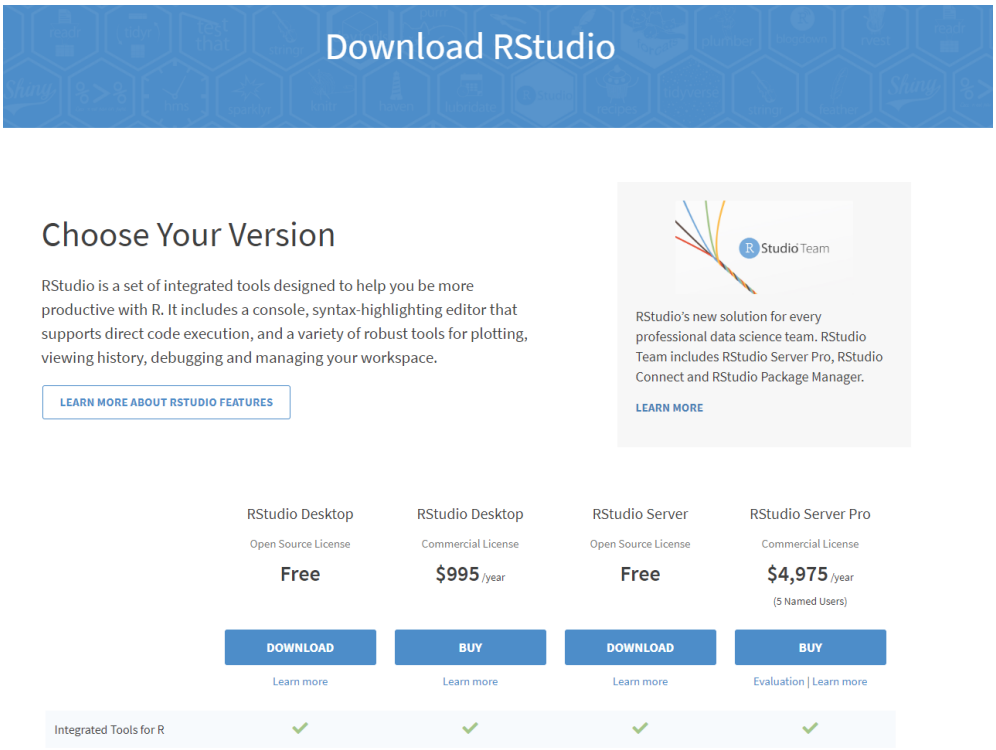


Image 6



RStudio Desktop 1.2.5019 - Release Notes

1. Install R. RStudio requires R 3.0.1+.

2. Download RStudio Desktop. Recommended for your system:

DOWNLOAD RSTUDIO FOR WINDOWS
1.2.5019 | 149.82MB

Requires Windows 10/8/7 (64-bit)

All Installers

Linux users may need to import RStudio's public code-signing key prior to installation, depending on the operating system's security policy.

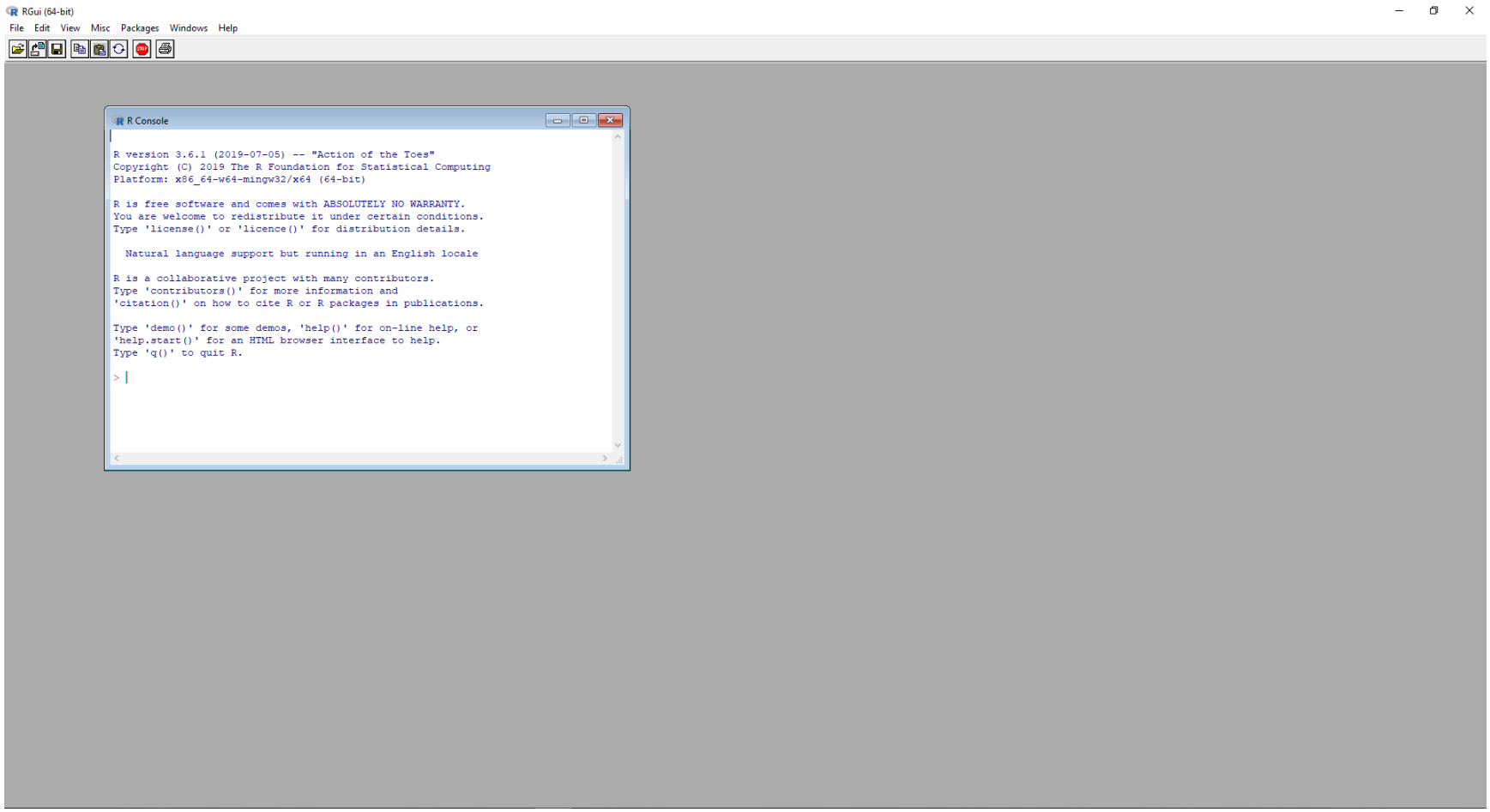
RStudio 1.2 requires a 64-bit operating system. If you are on a 32 bit system, you can use an older version of RStudio.

OS	Download	Size	SHA-256
Windows 10/8/7	RStudio-1.2.5019.exe	149.82 MB	7c6a943c
macOS 10.12+	RStudio-1.2.5019.dmg	126.88 MB	00cf7d64
Ubuntu 14/Debian 8	rstudio-1.2.5019-amd64.deb	96.93 MB	a0f43062
Ubuntu 16	rstudio-1.2.5019-amd64.deb	104.91 MB	24fad367
Ubuntu 18/Debian 10	rstudio-1.2.5019-amd64.deb	106.04 MB	e819293c
Fedora 19/Red Hat 7	rstudio-1.2.5019-x86_64.rpm	120.26 MB	c4fb97ce
Fedora 28/Red Hat 8	rstudio-1.2.5019-x86_64.rpm	120.89 MB	06ed0379

And install the software to your computer.

How does R and RStudio Look Like?

This is how R looks like when you open it up. As you can see everything (console, Rscript, etc.) will pop-up as a separate window.



And this is how RStudio looks like. On the top left you can see the RScript I started writing for the first tutorial of our workshop. On the bottom left you can see the console, where I wrote a line to assign the value 5 to an element x. On the top right you can see all the elements that are available in my work environment: the element x! And on the bottom right, you can see the files available in my working directory. On that window you can see a couple more sections: plots, packages, help, and viewer. Under plots you can see the plots you draw with R, for example.